

# Notice of Allowability

Application No.

10/075,865

Examiner

Matthew J. Sked

Applicant(s)

PETERS, JOCHEN

Art Unit

2655

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 08/31/05.
2. ☒ The allowed claim(s) is/are 1-15.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All b) ☐ Some\* c) ☐ None of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
  - \* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

## Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

W. R. YOUNG  
PRIMARY EXAMINER

## DETAILED ACTION

### *Response to Amendment*

1. The objection to the claims is withdrawn in view of the amendment filed 08/31/05.
2. The rejection to claims 1-15 under 35 U.S.C. 112 is withdrawn in view of the applicant's arguments. The term "orthogonalized", herein, shall be interpreted to refer to the linear combination of two sets of desired boundary values that occur over different ranges.
3. The rejection to claims 1-13 under 35 U.S.C. 101 is withdrawn in view of the amendment filed 8/31/05.

### *Allowable Subject Matter*

4. Claims 1-15 are allowed.
5. The following is an examiner's statement of reasons for allowance: Claim 1 recites the combination of calculating iteration values for free parameters in the maximum-entropy speech model as a function of the previous calculated iteration value and a specialized boundary value. This boundary value is calculated as a linear combination of a desired boundary value for a specific attribute and another desired boundary value for a group of attributes that have a larger range than the first attribute.

Berger et al. ("The Improved Iterative Scaling Algorithm: A Gentle Introduction") teaches a method for calculating iteration values for free parameters in the maximum entropy speech model as a function of the previous calculated iteration value and a

Art Unit: 2655

boundary value (IIS Algorithm, page 4). The boundary value, however, is only calculated over one range of attributes (equations 6 and 7, page 3).

Simons et al. ("Distant Bigram Language Modeling Using Maximum Entropy") teaches a method for calculating iteration values for free parameters as a function of the previous iteration value and a boundary value calculated over one range of attributes (auxiliary function, page 787, 1<sup>st</sup> col., last paragraph to page 788, col. 1, 2<sup>nd</sup> paragraph).

None of the prior art on record teaches or suggests calculating the boundary value, used in the calculation of free parameters, from two desired boundary values calculated over attributes of varying ranges. Therefore, it would not have been obvious to one of ordinary skill in the art at the time of invention to modify the system of Berger and Simons to arrive at the present invention.

6. Claims 2-15 are allowable because they further limit the claim in which they refer..

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew J. Sked whose telephone number is (571) 272-7627. The examiner can normally be reached on Mon-Fri (8:00 am - 4:30 pm).

Art Unit: 2655

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wayne Young can be reached on 571-272-7582. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MS  
09/08/05



W. R. YOUNG  
PRIMARY EXAMINER